

What is claimed is:

1. A diagnosis supporting device connected to an endoscope system that captures an image of a subject faced to the tip of an endoscope to generate special observation image data for displaying a special observation image for diagnosis based on various image data transmitted from the endoscope system, said diagnosis supporting device comprising:

a light emitting section that alternately emits excitation light to excite living tissue and reference light to illuminate the subject;

a probe that is inserted through a forceps channel to guide the excitation light and the reference light from a proximal end to a distal end;

an image data acquiring section that acquires fluorescent image data generated by the endoscope system when the light emitting section emits the excitation light and acquires reference image data generated by the endoscope system when the light emitting section emits the reference light;

an intensity measuring section that extracts the maximum brightness level from the brightness levels of all the pixels in the fluorescent image data and extracts the maximum brightness level from the brightness levels of all the pixels in the reference image data whenever the image signal acquiring section acquires a set of the reference image data and the fluorescent image data;

a calculating section that calculates a first intensity coefficient based on the maximum brightness level of the fluorescent image data according to a first operational expression and that calculates a second intensity coefficient corresponding to the maximum brightness level of the reference image data according to a second operational expression; and

a light controller that controls the intensity of the excitation light according to the first intensity coefficient and that controls the intensity of the reference light according to the second intensity coefficient,

wherein said first and second operational expressions are determined such that the intensities of said excitation light and said reference light increase as the maximum brightness levels of said fluorescent image data and said reference image data decrease.

2. The diagnosis supporting device according to claim 2, wherein said light emitting section includes a light source that varies intensity of the light in response to voltage applied to said light source, and wherein said light controller controls the intensities of said excitation light and said reference light by changing the voltage applied to said light source.

3. The diagnosis supporting device according to claim 1, further comprising:

an affected-area-information acquiring section that

determines whether a difference between brightness level of a pixel in said reference image data and brightness level of a pixel in said fluorescent image data at the corresponding position is larger than a predetermined threshold value or not for all of the pixels in said reference image data whenever said image signal acquiring section acquires a set of said reference image data and said fluorescent image data, and that acquires position information that specifies the positions of the pixels whose differences are larger than said threshold value;

an image generating section that generates color image data for displaying a monochromatic image on a monitor based on said reference image data acquired by said image data acquiring section ;

an image composing section that composes said color image data generated by said image generating section and said position information to convert the pixels on said color image data that are represented by said position information into specified pixels exhibiting a predetermined color; and

an output section that output the composed color image data composed by said image composing section as special observation image data.

4. The diagnosis supporting device according to claim 3, wherein said specific pixels exhibit red.

5. The diagnosis supporting device according to claim 1,

wherein said probe consists of a number of optical fibers that are bundled up with one another.